

REMARKS

The Official Action dated October 3, 2003, has been carefully reviewed and the following remarks are presented in response thereto. Claims 1 through 12 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,438,438 issued to Tagaki et al.

Applicant respectfully traverses the rejection of each of the claims of the present application.

The present application describes and claims a system and method that stores product manufacturing parameters within a database, analyzes the stored product manufacturing parameters to define one or more normal parameter subsets, and detects manufacturing parameters that are not contained within a normal subset in order to identify manufacturing anomalies. The present application includes two independent claims, claims 1 and 7. The remaining claims in the present application depend from claim 1 or claim 7. Independent method claim 1 recites:

1. A method for identifying manufacturing anomalies in a manufacturing system comprising a plurality of products which are manufactured with a plurality of *manufacturing parameters*, the method comprising the steps of
storing the plurality of *manufacturing parameters* in a data warehouse;
applying a data mining program to perform the steps of:
analyzing the stored *manufacturing parameters* to define a first normal manufacturing parameter subset;
detecting at least one of the plurality of *manufacturing parameters* that is excluded from the first normal subset; and
reporting the at least one detected *manufacturing parameter*. (emphasis added)

Independent apparatus claim 7 recites:

7. A system for identifying manufacturing anomalies in a manufacturing system comprising a plurality of products which are manufactured with a plurality of *manufacturing parameters*, comprising:

a data warehouse for storing the plurality of *manufacturing parameters*;
a data mining program applied to the data warehouse for analyzing the stored *manufacturing parameters* to define a first normal manufacturing parameter subset and detecting at least one of the plurality of *manufacturing parameters* that is excluded from the first normal subset; and

a reporting means for reporting the at least one detected *manufacturing parameter*. (emphasis added)

It is believed that the invention as recited in each one of the claims of the present application differs from the system taught in Tagaki et al. Tagaki et al. discloses a method and system of inspecting a product, extracting defects from the product, classifying the defects, extracting feature data of the defects on the basis of the results of the defect classification, and using the feature data for inspection in manufacture of the product. In contrast, the method and system recited in claims 1 and 7, respectively, of the present application stores product manufacturing parameters within a database, analyzes the stored product manufacturing parameters to define one or more normal parameter subsets, and detects manufacturing parameters that are not contained within a normal subset in order to identify manufacturing anomalies.

The present Official Action erroneously equates Applicant's manufacturing parameters with the product defects of Tagaki et al. These two elements are not equivalent – manufacturing parameters are not product defects. The present application includes as examples of manufacturing parameters: the tolerance of a



lot of resistors, the threshold of a lot of resistors, the capacitance of a lot of capacitors, the reactance of a lot of capacitors, the supplier from which a lot originated, the shipping method used for transporting a lot of components, and the time of year that a lot of components was manufactured. Clearly, the shipping method used for transporting a lot of components, or the time of year that a lot of components cannot be considered product defects.

It is believed that the claims of the present application are patentable over the cited reference to Tagaki et al. Tagaki et al does not teach or suggest a system that stores product manufacturing parameters within a database, analyzes the stored product manufacturing parameters to define one or more normal parameter subsets, and detects manufacturing parameters that are not contained within a normal subset in order to identify manufacturing anomalies.

Review and reconsideration of the present application is respectfully requested.

Respectfully submitted,

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FEB 17 2004

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